

### REMARKS

Claims 1-9 have been previously canceled, claims 10, 12 and 13 have been amended and no claims have been canceled or added by way of this response. Thus, claims 10-18 are currently pending and presented for examination. Applicants respectfully request reconsideration and allowance of the pending claims in view of the foregoing amendments and the following remarks.

#### Response to Objections:

The Examiner has objected to specification as failing to provide proper antecedent basis for the claimed subject matter. Applicants respectfully disagree that the specification fails to provide proper antecedent basis for the claimed subject matter.

The Examiner contends that “capacity of an installation” is not clearly defined. Applicant’s respectfully submit that “capacity of an installation” refers to the installations ability or “capacity” to carrying out an industrial process as described in paragraph [003] of the specification and as is well understood in the art. Capacity can be expressed as units/time, such as meters per second in the example of paragraph [003]. Other examples discussed for the specific embodiment of a paper manufacturing installation are provided in paragraph [0037]. Thus, the specification provides proper antecedent basis for this claim element.

The Examiner contends that the specification does not clearly identify what “process variables” are required for the intended process. Applicant’s respectfully submit that the process variables are merely the variables associated with the production process performed by the installation as described in paragraphs [0024] to [0027]. As described in paragraph [0029], the process variables relevant for a particular installation are determined at step 32, and this would be well within the ability of one skilled in the art without undue experimentation. Thus, the specification provides proper antecedent basis for this claim element.

The Examiner contends that “operating conditions” is not clearly defined. Applicant’s respectfully contend that one skilled in the art of paper manufacturing readily appreciates the operating conditions relevant to the manufacture of paper, and thus, proper antecedent basis for this claim element is provided.

The Examiner contends that what is or constitutes a “control reserve” is left unanswered. Applicants respectfully submit that a “control reserve” is the installations ability to adjust the

process variables to increase the capacity of the installation as discussed in paragraph [0029] of the specification. Furthermore, one skilled in the relevant art would readily appreciate the meaning of the term control reserve, and thus, proper antecedent basis for this claim element is provided.

The Examiner contends that "control loops" are not defined. Applicant's respectfully submit that one skilled in the art of manufacturing readily appreciates that the term control loops has its normal meaning in the art, and thus, proper antecedent basis for this claim element is provided.

The Examiner contends that the terms "filtered" and "sampled" are not clearly established in the instant disclosure. Applicant's respectfully submit that one skilled in the art of paper manufacturing readily appreciated that the terms "filtered" and "sampled" have their ordinary meaning. Paragraph [0042] describes how the dynamic components in a process variable are not of primary interest, and therefore, the variables may be filtered at a shorter interval (e.g. 2 seconds) than the sampling interval (e.g. 5 seconds). Thus, proper antecedent basis for this claim element is provided.

In light of the above, Applicant's respectfully request that the Examiner withdraw the objections to the specification.

Response to Rejections Under Section 112:

Claims 10-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant's regard as the invention. In general, the Examiner seems not to be giving credit for the level of understanding of a person skilled in the art. Commonly used terminology in the art of industrial processes and process controls are used in the specification and would be understood by one of ordinary skill in these fields. Attached is an article printed from the Internet titled "Control Theory" that provides evidence of how similar terms are used and are generally understood in the art.

Claim 10:

The Examiner contends that "what is considered a capacity is not clear." As discussed above, one skilled in the art of paper manufacturing would readily appreciate a paper

manufacturing installation's "capacity" to carry out the industrial process of manufacturing paper, which could be measured in any number of ways such as units/time.

The Examiner further contends that how and where "recording the process variables" is to be done is not clear. Applicant's respectfully submit that one skilled in the art of paper manufacturing would readily appreciate how and where to record process variables relevant to the particular process in question.

The Examiner further contends that "what is considered to be a reserve or even a control reserve is not found." Applicants respectfully submit that one skilled in the relevant art would readily appreciate the meaning of the term "control reserve."

The Examiner further contends that the term the "smallest control reserve" is a relative term which renders the claim indefinite. Applicant's have amended claim 10 to eliminate the term "smallest" and to further clarify Applicant's invention.

The Examiner further contends that "what are considered to be the control loops is not understood." MPEP 2173.02 states,

a claim term that is not used or defined in the specification is not indefinite if the meaning of the claim term is discernible.

Furthermore, Applicants respectfully submit that one skilled in the relevant art would readily appreciate the clear and unambiguous meaning of the term "control loops." See for example the feedback loop illustrated on the first page of the attached article "Control theory".

Claim 11:

The Examiner contends that "defining a desired increase in capacity" is a relative term that renders the claim indefinite. MPEP 2173.05(b) states,

acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification."

Applicant's respectfully submit that one skilled in the art would readily appreciate the clear and unambiguous meaning of the term "capacity" and what a "desired increase" is without further explanation.

Claim 12:

The Examiner contends that "what are considered to be the measures and how they are formulated is not clearly defined." Applicants have amended claim 12 to more clearly define the scope of Applicants invention.

Claim 14:

The Examiner contends that “an effect relationship” is a relative term that renders the claim indefinite. MPEP 2173.05(b) states,

acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification.”

Applicant’s respectfully submit that the term “effect” is any effect and therefore “an effect relationship” is a relationship having an effect. Furthermore, one of ordinary skill in the art would readily appreciate the meaning of “an effect relationship” and therefore the breadth of claim 14.

Claim 18:

The Examiner contends that “the process of filtering and sampling is not fully described or defined in a manner of allowing one of skill to filter or sample the data with regard to the instant invention.” As discussed above, claim term in the specification is not indefinite if the meaning of the claim term is discernible. Applicant’s respectfully submit that recitation of a specific method of filtering or sampling is not required for one to fully understand the metes and bounds of Applicant’s invention. Paragraph [0042] provides one example where the interval of filtering and sampling are specified.

In light of the above, Applicants respectfully submit that claims 10-18 are not indefinite and request the Examiner to withdraw the section 112, second paragraph rejections.

Response to Rejections Under Section 102:

Claims 10-16 stand rejected under 35 U.S.C § 102(b), the Examiner contending that these claims are anticipated by Eryurek et al. (USPN 2003/0045962).

Applicants claim 10 recites in part:

**...determining a minimum control reserve** of a plurality of control loops of the installation on the basis of the recorded process variables;  
**determining actions that increase the capacity of the installation** ... based on the determined minimum control reserves; and  
implementing the actions resulting in an **increase in installation capacity**.



In contrast, Eryurek et al. teaches a control system using a process model for the control of a paper manufacturing facility and does not teach **determining a minimum control reserve, determining actions that increase the capacity of the installation** based on the determined minimum control reserves; and implementing the actions resulting in an **increase in installation capacity** as recited in claim 10.

MPEP 2131 requires "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM."

As discussed above, claim 10 is not anticipated by Eryurek et al. Furthermore, Claims 11-16 which depend on claim 10 are also patentable at least based on their dependence from claim 10 as well as based on their own merits. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejections.

Response to Rejections Under Section 103:

Claims 17 and 18 stand rejected under 35 U.S.C § 103(a), claim 17 as being obvious over Eryurek et al. and claim 18 as being obvious over Eryurek et al. in view of Lewis et al. (USPN 5,281,343).

As discussed in connection with the section 102 rejections, Eryurek et al. does not teach the limitations of **determining a minimum control reserve, determining actions that increase the capacity of the installation** based on the determined minimum control reserves; and implementing the actions resulting in an **increase in installation capacity** as recited in base claim 10. Therefore, Eryurek et al. and Eryurek et al. in view of Lewis et al. does not render claims 17 and 18 unpatentable at least based upon their dependence from claim 10. Applicants respectfully submit that claims 17 and 18 are patentable and respectfully request the Examiner to withdraw the Section 103 rejections.

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Conclusion

For the foregoing reasons, it is respectfully submitted that the objections and rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, Applicants respectfully request that the Examiner reconsider the objections and rejections and timely pass the application to allowance. All correspondence should continue to be directed to our below-listed address. Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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